

**Appl. No.** : **10/018,637**  
**Filed** : **June 7, 2002**

## **AMENDMENTS TO THE CLAIMS**

1. (Currently amended) A catheter comprising:

a tip end portion which is formed of a single-pipe tube and is adapted to be implanted in an abdominal cavity, and in which a plurality of through-hole rows are formed, the through-hole row including a plurality of through-holes for draining formed so as to penetrate a side wall of the single-pipe tube and to be separated by a predetermined interval along an axial direction of the single-pipe tube; and

a projection portion which is projected outside from an abdomen outer wall, wherein a plurality of grooves are provided at an outer peripheral surface of the tip end portion, each individual groove of the plurality of grooves communicates with the plurality of through-holes at side surfaces of said through-holes along a direction in which said through-hole row extends, said each groove is narrower than a diameter of said through-holes and is formed only at an outer peripheral surface of said tip end, a depth of each groove is 0.8mm to 1.0mm, and each groove is formed such that the width of the groove is narrower at the inner portion thereof than at the opening thereof, and such that the depth of the groove is greater than the width of the groove at the groove opening.

2. (Cancelled)

3. (Previously Presented) The catheter of Claim 1, further comprising a cuff for fixing said catheter to an abdominal portion.

4. (Previously Presented) The catheter of Claim 1, wherein said groove is formed along an entire length of said tip end portion.

5. (Previously Presented) The catheter of Claim 1, wherein width of said groove is 0.1 mm to 0.8 mm.

6. (Previously Presented) The catheter of Claim 1, wherein said through-holes for draining are side holes.

7. (Previously Presented) The catheter of Claim 1, wherein said groove is a slit which is not closed even by soft tissue of an intraperitoneal organ.

8-9 (Cancelled)

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10. (Previously Presented) The catheter of Claim 3, wherein said groove is formed along an entire length of said tip end portion.

11-12 (Cancelled)

13. (Previously Presented) The catheter of Claim 3, wherein width of said groove is 0.1 mm to 0.8 mm.

14. (Cancelled)

15. (Previously Presented) The catheter of Claim 4, wherein width of said groove is 0.1 mm to 0.8 mm.

16. (Cancelled)

17. (Previously Presented) The catheter of Claim 10, wherein width of said groove is 0.1 mm to 0.8 mm.

18-20 (Cancelled)

21. (Previously Presented) The catheter of Claim 1, wherein the depth of each groove is 1.0mm.

22. (Currently Amended) A catheter comprising:

a tip end portion which is formed of a single-pipe tube and is adapted to be implanted in an abdominal cavity, and in which a plurality of through-hole rows are formed, the through-hole row including a plurality of through-holes for draining formed so as to penetrate a side wall of the single-pipe tube and to be separated by a predetermined interval along an axial direction of the single-pipe tube; and

a projection portion which is projected outside from an abdomen outer wall,

wherein a plurality of grooves are provided at an outer peripheral surface of the tip end portion, each individual groove of the plurality of grooves communicates with the plurality of through-holes at side surfaces of said through-holes along a direction in which said through-hole row extends, said each groove is narrower than a diameter of said through-holes and is formed only at an outer peripheral surface of said tip end, a thickness from bottom surfaces of each groove to the inner surface of the single-pipe tube is 0.45mm to 0.5mm, and each groove is formed such that the width of the groove is narrower at the inner portion thereof than at the

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opening thereof, and such that the depth of the groove is greater than the width of the groove at the opening.

23. (Previously Presented) The catheter of Claim 22, wherein the thickness from bottom surfaces of each groove to the inner surface of the single-pipe tube is 0.5mm.

24. (Currently amended) A catheter comprising:

a tip end portion which is formed of a single-pipe tube and is adapted to be implanted in an abdominal cavity, and in which a plurality of through-hole rows are formed, the through-hole row including a plurality of through-holes for draining formed so as to penetrate a side wall of the single-pipe tube and to be separated by a predetermined interval along an axial direction of the single-pipe tube; and

a projection portion which is projected outside from an abdomen outer wall,

wherein a plurality of grooves are provided at an outer peripheral surface of the tip end portion, each individual groove of the plurality of grooves communicates with the plurality of through-holes at side surfaces of said through-holes along a direction in which said through-hole row extends, said each groove is narrower than a diameter of said through-holes, and each groove is formed such that the width of the groove is narrower at the inner portion thereof than at the opening thereof, and such that the depth of the groove is greater than the width of the groove at the opening.